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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,049	10/10/2000	David C Alsop	UPN-3617	7690
7590	01/12/2005		EXAMINER	
Joseph R Condo Woodcock Washburn Kurtz Mackiewicz & Norris One Liberty Place 46th Floor Philadelphia, PA 19103			JUNG, WILLIAM C	
			ART UNIT	PAPER NUMBER
			3737	
DATE MAILED: 01/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/673,049	<b>Applicant(s)</b> ALSOP, DAVID C	
	<b>Examiner</b> William Jung	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 5-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed May 5, 2004 have been fully considered but they are not persuasive.

The provisional status of the double patenting changed since the application is now a US Pat. No. 6,717,405. However, the double patenting rejection still stands as stated in the previous Office Action (Dated Nov. 6, 2003).

The Applicant argues that the double patenting is improper due to different assignment and the filing date of US 6,717,405 being four after the Application at hand. However, the filing date is irrelevant in regards to double patenting, since it is not used as a prior art rejection. In addition, the assignment of the two different entities is precisely the reason why the double patenting rejection was applied. One of the reason for double patenting requirement is to prevent same patent or invention to be assigned to more than one ownership. Therefore, the double patenting is proper.

Regards to argument of double patenting basis on page 2, paragraph 4 to page 3: US 6,717,405 indeed claims that the RF signal is amplitude modulated and the signal is applied simultaneously with the magnet filed gradient. The wording of the claim is different, however, the claim method is identical to US 6,717,405. Therefore, the double patenting rejection still stands.

### ***Double Patenting***

2. Claims 1, 9, 14, 20 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 48 of U.S. Patent No. 6,717,405.

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Although the conflicting claims are not identical, they are not patentably distinct from each other because the distinguishing features of both the US 6,717,405 and the instant .049 application teach the step of "applying amplitude- modulated RF irradiation in determining perfusion, the language of US 6,717,405 being broader than that of the .049.

More specifically, claim 1 of 6,717,405 summarily teaches:

- a) applying a amplitude-modified magnetic field gradient and RF irradiation to acquire first data set.
- b) applying a second RF irradiation to acquire a second data set, and
- c) generating a compensated fluid flow data, wherein the said flow data is a function of at least the first and second data.

For the .049 application, claims 1, 9, 14, and 20 teach:

- a) applying a constant RF irradiation with a magnetic field gradient, and acquire a first image of sample.
- b) applying amplitude modulated RF irradiation with a magnetic field signal to generate second image.
- c) generating a difference image signal from the two prior image signals to create a blood flow image.

Comparing the language of the two applications for the claims cited, the steps of applying the amplitude-modulated RF radiation and subsequent image data are reversed in sequence, with step a) in 6,717,405 analogous to step b) of '049 (wherein applying a constant RF radiation would read in to the broader '963 claim of "applying RF radiation). Citing the Foo reference, (US 6,493,569), it is well known that step a) from the '049 application, interpretable as the

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"masking step", may be done before or after the primary image acquisition image known as step b) from the said application. (column 3, lines 49-65)

As to step f 49 c), generating a difference image to produce a arterial perfusion image reads on 6,717,405's step c).

It is noted that 6,717,405 does not teach a waiting a transit delay period, or determining a transit delay period. However, it is well known in the art to wait until the contrast agent arrives to the targeted area before image acquiring. For the above reasons, a double patenting rejection is valid.

***Allowable Subject Matter***

3. Claims 5-8, 10-13, 15-19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung, Ph.D. whose telephone number is 571-272-4739.

The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJ  
January 7, 2005

  
**ELENI MANTIS-MERCADER**  
**PRIMARY EXAMINER**